AMENDMENT

The following Listing of the Claims will replace all prior versions and all prior listings of the claims in the present application:

Listing of The Claims:

1. (Original) An isolated polynucleotide comprising at least two tag sequences, wherein one of said two tag sequences encodes streptavidin-binding peptide having a nucleotide sequence presented in Figure 1.

2. (Original) An isolated polynucleotide comprising a gene sequence of interest and at least two tag sequences, wherein said gene sequence of interest is fused in frame with each of said tag sequences, and wherein one of said two tag sequences encodes streptavidin-binding peptide having a nucleotide sequence presented in Figure 1.

3. (Original) An isolated polynucleotide comprising at least two tag sequences, wherein one of said two tag sequences encodes streptavidin binding peptide, and wherein one of said two tag sequences encodes calmodulin binding peptide.

4. (Original) An isolated polynucleotide comprising a gene sequence of interest and at least two tag sequences, wherein said gene sequence of interest is fused in frame with each of said tag sequences, and wherein one of said two tag sequences encodes streptavidin binding peptide, and wherein one of said two tag sequences encodes calmodulin binding peptide.

5. (Original) The isolated polynucleotide of claim 2 or 4, wherein each of said tags are adjacent to the 5' end of the target gene.

6. (Original) The isolated polynucleotide of claim 2 or 4, wherein each of said tags are adjacent to the 3' end of the gene.

7. (Original) A vector comprising the isolated polynucleotide of claim 1, 2, 3 or 4.

8. (Original) A cell comprising the vector of claim 5.

9. (Original) A composition comprising the isolated polynucleotide of claim 1, 2, 3 or 4.

10. (Withdrawn) A chimeric protein comprising at least two different affinity tags, wherein one of said affinity tags is streptavidin binding peptide, having the sequence presented in Figure 1.

11. (Withdrawn) A chimeric protein comprising a protein of interest fused in frame to at least two different affinity tags, wherein one of said affinity tags is streptavidin binding peptide, having the sequence presented in figure 1.

12. (Withdrawn) A chimeric protein comprising at least two different affinity tags, wherein one of said affinity tags is streptavidin binding peptide and wherein one of said affinity tags is calmodulin binding peptide.

13. (Withdrawn) A chimeric protein comprising a protein of interest fused in frame to at least two different affinity tags, wherein one of said affinity tags is streptavidin binding peptide, and wherein one of said affinity tags is calmodulin binding peptide.

14. (Withdrawn) The chimeric protein of claim 11 or 12 wherein each of said tags are adjacent to the N-terminus of the protein of interest.

15. (Withdrawn) The chimeric protein of claim 11 or 12 wherein each of said tags are adjacent to the C-terminus of the protein of interest.

16. (Withdrawn) A composition comprising the chimeric protein of claim 10, 11, 12 or 13.

17. (Withdrawn) A method of detecting or isolating one or more binding partners for a protein encoded by a gene of interest, comprising the steps:

cloning a gene sequence of interest into a vector, wherein said gene sequence of interest is fused in frame with at least two different tag sequences, and wherein one of said two tag sequences encodes streptavidin binding peptide having the amino acid sequence presented in Figure 1,

introducing said vector into a cell that comprises at least one candidate binding partner for said protein product of said gene of interest;

allowing said protein product of said gene sequence of interest and said candidate binding partner to form a complex in the cell;

isolating said complex by

a) lysing the cells; and

b) performing at least one round of affinity purification, and

detecting said protein complex.

18. (Withdrawn) A method of detecting or isolating one or more binding partners for a protein encoded by a gene sequence of interest, comprising the steps:

cloning a gene sequence of interest into a vector, wherein said gene sequence of interest is fused in frame with at least two different tag sequences, and wherein one of said two tag sequences encodes streptavidin binding peptide, and wherein one of said two tag sequences encodes calmodulin binding peptide;

introducing said vector into a cell that comprises at least one candidate binding partner for said protein product of said gene sequence of interest;

allowing said protein product of said gene of interest and said candidate binding partner to form a complex in the cell;

isolating said complex by

a) lysing the cells; and

b) performing at least one round of affinity purification, and

detecting said protein complex.

19. (Withdrawn) The method of claim 17 or 18 wherein said cell comprises a vector that expresses at least one candidate binding partner for said protein product of interest.

20. (Withdrawn) The method of claim 17 or 18 wherein said candidate binding partner for said protein product of interest comprises a tag.

21. (Withdrawn) A method of detecting or isolating a protein complex comprising the steps of:

cloning a gene sequence of interest into a vector, wherein said gene sequence of interest is fused in frame with at least two different tag sequences, and wherein one of said two tag sequences encodes streptavidin binding peptide having the amino acid sequence presented in Figure 1;

introducing said vector into a cell that expresses at least one protein binding partner for said protein product of said gene sequence of interest;

allowing said protein product of said gene sequence of interest and said protein binding partner to form a complex in the cell;

isolating said complex by

a) lysing the cells; and

b) performing at least one round of affinity purification, and

detecting said protein complex.

22. (Withdrawn) A method of detecting or isolating a protein complex comprising the steps of:

cloning a gene sequence of interest into a vector, wherein said gene sequence of interest is fused in frame with at least two different tag sequences, and wherein one of said two tag sequences encodes streptavidin binding peptide, and wherein one of said two tag sequences encodes calmodulin binding peptide;

introducing said vector into a cell that expresses at least one protein binding partner for said protein product of said gene sequence of interest;

allowing said protein product of said gene sequence of interest and said protein binding partner to form a complex in the cell;

isolating said complex by

a) lysing the cells; and

b) performing at least one round of affinity purification, and

detecting said protein complex.

23. (Withdrawn) The method of claim 21 or 22 wherein said cell comprises a vector that expresses at least one candidate binding partner for said protein product of interest.

24. (Withdrawn) The method of claim 21 or 22, wherein said candidate binding partner comprises a tag.

25. (Withdrawn) The method of claim 17, 18, 21 or 22, wherein said complex is isolated by performing at least two successive rounds of affinity purification.

26. (Original) A kit for isolating a protein complex or identifying one or more binding partners for a protein, comprising the vector of claim 7, and packaging means.

27. (Original) The kit of claim 26, further comprising a purification resin.

28. (New) The isolated polynucleotide of claim 3, wherein said streptavidin binding peptide comprises a sequence encoded by the nucleotide sequence presented in Figure 1 (SEQ ID NO: 5).

29. (New) The isolated polynucleotide of claim 3, wherein said streptavidin binding peptide comprises a sequence encoded by the nucleotide sequence presented in Figure 1 (SEQ ID NO: 7).